



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,964	07/11/2001	Budy D. Notohardjono	POU920010101US1	9236

7590

10/17/2002

LAWRENCE D. CUTTER, Attorney
IBM Corporation
Intellectual Property Law Dept.
2455 South Rd., M/S P386
Poughkeepsie, NY 12601

EXAMINER

NGUYEN, JIMMY

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 10/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/902,964

Applicant(s)

NOTOHARDJONO ET AL.

Examiner

Jimmy Nguyen

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/11/01.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5,6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 – 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 1 and 6, the applicant fails to point out the particular volume that the applicant refers to; the examiner is unclear about the limitation “the volume shown in figures 4A through 4B”. This is an unacceptable claims language. Correction is required.

As best understood, the graph illustrates in figures 4A – 4D is “offset” versa “core wire diameter” and if the values of L, p and d being conjoint fail within the acceptable region that should be an acceptable range value.

Specification

3. The specification is objected to because of the following informalities: page 7 line 17; mask 110 is not identified; it should be mask 130.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

5. Claims 1 – 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamel et al (US 6404211).

As to claims 1, 6, 9, Hamel et al disclose (figure 1)

A probe assembly (10) for making electrical contact with circuit elements on an IC wafer (94), or the like, said probe (10) comprising:

A first support (80) which is substantially flat;

A second support (30, 40, 50, 60, 70) disposed on first member (80) and providing a sidewall structure which extends substantially vertically upward from substantially flat first support (80)

Art Unit: 2829

A substantially flat mask (20) having at least one aperture (22, 24) therein, said mask being supported by second support (30, 40, 50, 60, 70) at a substantially uniform distance from first support (80);

A flexible, self supporting wire probe (100, fig 2) affixed to first support (80), said wire probe (100) having a pointed end (110) which extends at least partially through at least one aperture (22, 24), wire probe (100) having two (110, 114) substantially oppositely directed bends therein so as to permit wire probe (100) to flex in response to force applied to pointed end (114);

Said wire probe (100, figure 10) comprising a core material (fig 10) selected from the group consisting of platinum (column 5 line 23 – 25) and platinum iridium alloys and being plated with material (102) selected from the group consisting of nickel, gold, nickel alloys and gold alloys (column 10 line 44, the insulation described as a insulated metal); and

Said wire probe (100, figure 10) having a core diameter d , a thickness p of concentrically disposed material, and an offset L , said offset being the horizontal distance between the point of affixation of said wire probe (100) to first support (80) and the aperture (22, 24) through which wire probe extends, values of L , p , and d being conjointly selected so as to define a point lying in the volume shown in acceptable region.

As to claim 2, Hamel et al disclose (figure 1) the mask has a plurality of apertures (22, 24).

As to claim 3, Hamel et al disclose (figure 1) the plurality of similarly structured wire probes (100) affixed to first support (80) and extending through respective ones of apertures (85).

As to claim 4, Hamel et al disclose (figure 1) the first support (80) comprises ceramic material (column 9 line 28 – 30, the insulation coated with the ceramic material layer 15).

As to claim 5, Hamel et al disclose (figure 1) the probe structure (100) which mask (20) comprises a polyimide layer disposed between an invar layer (column 7 line 35 – 45).

As to claim 7, Hamel et al disclose (figure 3) the wire probe (100) is substantially disposed within a single plane.

As to claim 8, Hamel et al disclose (figure 4) the wire probe (100) which bends are disposed so that flexing of wire occurs substantially within a single plane.

Application/Control Number: 09/902,964
Art Unit: 2829

Page 6

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Nguyen at (703) 306-5858. Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4900.

JN.
Oct 7, 2002

A handwritten signature in black ink, appearing to read 'Kamand Cuneo', with a long horizontal flourish extending to the right.

**KAMAND CUNEO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800**